

IN THE CLAIMS:

1. (Currently amended) A method in a graphics adapter for displaying an object, the method comprising:

receiving position coordinates and texture coordinates for the object;  
inverting, in a first stage of a hardware pipeline, a depth coordinate associated with the position and the texture coordinates to form an inverted coordinate;  
multiplying, in a second stage of the hardware pipeline, the position coordinates and the texture coordinates by the inverted coordinate to form adjusted position coordinates and adjusted texture coordinates; and  
displaying the object using the adjusted position coordinates and the adjusted texture coordinates.

2. (Canceled)

3. (Currently amended) The graphics pipeline of claim 2, A graphics pipeline comprising:

an input, wherein the input receives graphics data, wherein the graphics data includes position coordinates and a depth coordinate for an object;  
an output, wherein the output transmits processed graphics data;  
a plurality of processing elements, wherein the plurality of processing elements generates the processed graphics data, wherein a first processing element within the plurality of processing elements is connected to the input and a last processing element within the plurality of processing elements is connected to the output, wherein a selected processing element within the plurality of processing element receives the position coordinates and the depth coordinate, inverts the depth coordinate to form an inverted depth coordinate, and multiplies the position coordinates by the inverted depth coordinate, and wherein the selected processing element comprises:  
a first stage, wherein the first stage receives the position coordinates and the depth coordinate and inverts the depth coordinate; and

a second stage, wherein the second stage multiplies the position coordinates by the inverted depth coordinate.

[4. (Canceled)

3/5. (Currently amended) The graphics pipeline of claim ~~[[4]]~~<sup>2</sup>, wherein the selected processing element comprises:

a first stage, wherein the first stage receives the position coordinates, the texture coordinates, and the depth coordinate and inverts the depth coordinate; and

a second stage, wherein the second stage multiplies the position coordinates and the texture coordinates by the inverted depth coordinate.

4/6. (Original) The graphics pipeline of claim ~~3~~<sup>3</sup>, wherein processing of the position coordinates and the texture coordinates for an object occurs within five clock cycles.

5/7. (Currently amended) A graphics adapter comprising:

an input configured to receive graphics data;

a frame buffer, wherein processed graphics data is stored for display;

a raster engine connected to the input and to the frame buffer, wherein the raster engine rasterizes the processed graphics data for display; and

a geometry engine connected to the raster engine, wherein the geometry engine receives the graphics data from the raster engine, processes the graphics data to form the processed graphics data, and returns the processed graphics data to the raster engine, wherein the geometry engine includes a set of processing elements in which a selected processing element within the set of processing elements receives position coordinates and a depth coordinate, inverts the depth coordinate to form an inverted depth coordinate, and multiplies the position coordinates by the inverted depth coordinate, and wherein the selected processing element comprises:

a first stage, wherein the first stage receives the position coordinates, the texture coordinates, and the depth coordinate and inverts the depth coordinate; and

a second stage, wherein the second stage multiplies the position coordinates and the texture coordinates by the inverted depth coordinate.

[8. (Canceled)

[9. (Canceled)

10. (Original) The graphics adapter of claim <sup>5</sup>7, wherein processing of position coordinates and texture coordinates for an object occurs within five clock cycles.

11. (Currently amended) A graphics adapter for displaying an object, the graphics adapter comprising:

receiving means for receiving position coordinates and texture coordinates for the object;

inverting means for inverting, in a first stage of a hardware pipeline, a depth coordinate associated with the position and the texture coordinates to form an inverted coordinate;

multiplying means for multiplying, in a second stage of the hardware pipeline, the position coordinates and the texture coordinates by the inverted coordinate to form adjusted position coordinates and adjusted texture coordinates; and

displaying means for displaying the object using the adjusted position coordinates and the adjusted texture coordinates.

[12. (Canceled)